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# NOTICE OF ALLOWANCE AND FEE(S) DUE

22850 7590 03/23/2010

OBLON, SPIVAK, MCCLELLAND MAJER & NEUSTADT, L.L.P. 1940 DUKE STREET

ALEXANDRIA, VA 22314

EXAMINER I ALL IONATHAN'S

PAPER NUMBER ARTHNIT

1623 DATE MAILED: 03/23/2010

APPLICATION NO. FILING DATE FIRST NAMED INVENTOR ATTORNEY DOCKET NO. CONFIRMATION NO. 6777 10/764.989 01/26/2004 Sigrid Buhler 272748US0

TITLE OF INVENTION: NOVEL PHOTOLABILE PROTECTIVE GROUPS FOR IMPROVED PROCESSES TO PREPARE OLIGONUCLEOTIDE

ARRAYS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(8) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	06/23/2010

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. <u>PROSECUTION ON THE MERITS IS CLOSED.</u> THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

#### HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown

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A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

## PART B - FEE(S) TRANSMITTAL

# Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

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10/764,989 TITLE OF INVENTION ARRAYS	01/26/2004 I: NOVEL PHOTOLA	BILE :	PROTECTIVE GI	Sigrid Buhler ROUPS FOR IMPRO	VED P	ROCESSES T	O PRI	272748US0 PARE OLIGONUCI	6777 LEOTIDE	
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EXAMI	NER		ART UNIT	CLASS-SUBCLASS	7					
LAU, JONA	ATHAN S		1623	558-275000	_					
"Fee Address" indic PTO/SB/47; Rev 03-02 Number is required.  3. ASSIGNEE NAME AN	ondence address (or Cha /122) attached. cation (or "Fee Address' 2 or more recent) attach ND RESIDENCE DATA sess an assignce is identi in 37 CFR 3.11. Comp	nge of 'Indica ed. Use	Correspondence ation form e of a Customer		to 3 re atively, ngle fir- or ageni ttorney be prin type)	egistered patent m (having as a t) and the name s or agents. If i ted.	membes of u	er a 2	ocument has been filed i	for
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4a. The following fee(s) are submitted:    Issue Fee   Publication Fee (No small entity discount permitted)   Advance Order - # of Copies				A check is enclose  Payment by credit  The Director is her overpayment, to De	d. card. Fo	orm PTO-2038	is atta	ched. required fee(s), any de		)
<ol> <li>Change in Entity State</li> <li>a. Applicant claims</li> </ol>	us (from status indicated SMALL ENTITY statu			b. Applicant is no l	longer c	laiming SMAI	L EN	TITY status. Sec 37 Cl	FR 1.27(g)(2).	
NOTE: The Issue Fee and interest as shown by the re	Publication Fee (if requeeords of the United Sta	iired) v tes Pat	will not be accepted ent and Trademark	from anyone other that Office.	ın the aj	pplicant; a regis	stered a	uttorney or agent; or th	ne assignee or other party	in
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DATE MAILED: 03/23/2010

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/764,989	01/26/2004	Sigrid Buhler	272748US0	6777	
22850 7.	590 03/23/2010	EXAMINER			
OBLON, SPIVA	K, MCCLELLAND	LAU, JONATHAN S			
1940 DUKE STREET			ART UNIT	PAPER NUMBER	
ALEXANDRIA, V	/A 22314	1623			

# Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 180 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 180 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

# Notice of Allowability

Application No.	Applicant(s)	
10/764,989	BUHLER ET AL.	
Examiner	Art Unit	

	Jonathan S. Lau	1623	
The MAILING DATE of this communication appe All claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-83) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT R of the Office or upon petition by the applicant. See 37 CFR 1.313	(OR REMAINS) CLOSED in this app or other appropriate communication IGHTS. This application is subject to and MPEP 1308.	olication. If not includ- will be mailed in due o withdrawal from issu	ed course. THIS
1. This communication is responsive to <u>Applicant's Amendment</u>	ent and Remarks, filed 30 Dec 2009	and 10 Mar 2010.	
2. The allowed claim(s) is/are <u>1,3-17,24,25 and 30-57</u> .			
	been received.  been received in Application No cuments have been received in this i	national stage applica	
THIS THREE-MONTH PERIÓD IS NOT EXTENDABLE.  4. A SUBSTITUTE OATH OR DECLARATION must be subm INFORMAL PATENT APPLICATION (PTO-152) which give	iitted. Note the attached EXAMINER		IOTICE OF
5. CORRECTED DRAWINGS (as "replacement sheets") must (a) Including changes required by the Notice of Draftspers  1) hereto or 2) to Paper No./Mail Date (b) including changes required by the attached Examiner' Paper No./Mail Date Identifying indicia such as the application number (see 37 CFR 1 each sheet. Replacements sheet(s) should be labeled as such in the such	st be submitted. son's Patent Drawing Review ( PTO s Amendment / Comment or in the C84(c) should be written on the drawir	948) attached  office action of	e back) of
DEPOSIT OF and/or INFORMATION about the depo attached Examiner's comment regarding REQUIREMENT			Note the
Attachment(s)  1. Notice of References Cited (PTO-892)  2. Notice of Destruction Peters Proving Period (PTO-948)	5. Notice of Informal P		

Paper No./Mail Date\_

of Biological Material

3. Information Disclosure Statements (PTO/SB/08),

4. ☐ Examiner's Comment Regarding Requirement for Deposit

Paper No./Mail Date \_\_\_\_.

7. 
Examiner's Amendment/Comment

9. Other \_\_\_\_.
/Shaojia Anna Jiang/

8. X Examiner's Statement of Reasons for Allowance

Supervisory Patent Examiner, Art Unit 1623

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# EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Stefan Koschmieder on 11 Mar 2010.

The application has been amended as follows:

## Amendment to the Claims

Claims 1, 12, 30 and 39 are amended to correct a misspelling:

- Claim 1 at page numbered 3, line 3, replace "phosphitamidite" with "phosphoramidite".
- · Claim 12 at line 2, replace "phosphitamidite" with "phosphoramidite".
- Claim 30 at page numbered 8, line 14, replace "phosphitamidite" with "phosphoramidite".
- Claim 39 at line 2, replace "phosphitamidite" with "phosphoramidite".

# DETAILED ACTION

This Office Action is responsive to Applicant's Amendment and Remarks, filed 30 Dec 2009, in which claims 1, 6 and 30 are amended and new claims 47-57 are added, and Applicant's Supplemental Amendment and Remarks, filed 10 Mar 2010, in which claims 1, 24, 25 and 30 are amended to change the scope and breadth of the claim, claims 12 and 39 are amended to change the phrasing of the claim, and claims 18-23 and 26-29 are canceled.

Applicant's Supplemental Amendment and Remarks, filed 10 Mar 2010, has been entered because the supplemental reply is clearly limited to placement of the application in condition for allowance.

This application is a domestic application, filed 26 Jan 2004; and claims benefit of provisional application 60/449,070, filed 21 Feb 2003.

Claims 1, 3-17, 24, 25, and 30-57 are pending in the current application. Claims 24 and 25, drawn to non-elected inventions, are rejoined herein. Claims 1, 3-17, 24, 25, and 30-57 are allowed herein.

## Election/Restrictions

Claims 1, 3-17 and 30-57 are directed to an allowable product. Pursuant to the procedures set forth in MPEP § 821.04(B), claims 24 and 25, directed to the process of

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making or using an allowable product, previously withdrawn from consideration as a result of a restriction requirement, are hereby rejoined and fully examined for patentability under 37 CFR 1.104.

Because a claimed invention previously withdrawn from consideration under 37 CFR 1.142 has been rejoined, the restriction requirement between groups I-III and VI as set forth in the Office action mailed on 6 Jun 2006 is hereby withdrawn. In view of the withdrawal of the restriction requirement as to the rejoined inventions, applicant(s) are advised that if any claim presented in a continuation or divisional application is anticipated by, or includes all the limitations of, a claim that is allowable in the present application, such claim may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application.

Once the restriction requirement is withdrawn, the provisions of 35 U.S.C. 121 are no longer applicable. See *In re Ziegler*, 443 F.2d 1211, 1215, 170 USPQ 129, 131-32 (CCPA 1971). See also MPEP § 804.01.

## REASONS FOR ALLOWANCE

The following is an examiner's statement of reasons for allowance:

# Rejections Withdrawn

Applicant's Amendment and Remarks, filed 30 Dec 2009 and 10 Mar 2010, with respect to claims 1, 3-17 and 30-46 rejected under 35 U.S.C. § 112, first paragraph as failing to comply with the written description requirement has been fully considered and is persuasive, as amended claims 1 and 30 do not recite "functional group useful in

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oligonucleotide synthesis," "chemical modifications thereof," "chemically modified," and "analog" used to describe a chemical compound and Applicant's remarks are persuasive with regard to the terms "substituted," "leaving group," "photolabile protective group" and protective group within the context of the instant invention.

This rejection has been withdrawn.

Applicant's Amendment and Remarks, filed 30 Dec 2009 and 10 Mar 2010, with respect to claims 1, 3-17 and 30-46 rejected under 35 U.S.C. 112, second paragraph, as being indefinite has been fully considered and is persuasive, as amended claims 1 and 30 do not recite "functional group useful in oligonucleotide synthesis," "chemical modifications thereof," "chemically modified," and "analog" used to describe a chemical compound and Applicant's remarks are persuasive with regard to the terms "substituted," "leaving group," "photolabile protective group" and protective group within the context of the instant invention.

This rejection has been withdrawn.

Applicant's Amendment and Remarks, filed 30 Dec 2009 and 10 Mar 2010, with respect to claims 1, 3, 5 and 7-17 rejected under 35 U.S.C. 103(a) as being unpatentable over Pfleiderer et al. (US Patent 5,763,599, issued 09 Jun 1998, of record) and Fodor et al. (US Patent 5,489,678, issued 06 Feb 1996, of record) in view of Walbert et al. (Helvetica Chimica Acta, 2001, 6, p1601-1611, of record) and Forbes et al. (Can. J. Chem. 1958, 36, p869-878, of record) and Wagner (J. Am. Chem. Soc.

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1967, 89(12), p2820-2825) and Adam et al. (J. Chem. Soc. 1930, p202-206, of record) has been fully considered and is persuasive, as Applicant's remarks are persuasive that Pfleiderer et al. and Fodor et al. in view of Walbert et al. and Forbes et al. and Wagner and Adam et al. does not provide sufficient guidance to one of ordinary skill in the art to pick and choose to combine the teachings such that the instant invention is rendered obvious. MPEP 2144.08 provides guidance regarding patentability of a claim to a specific subgenus embraced by a prior art genus. While Walbert et al. and Forbes et al. and Wagner and Adam et al. are relied upon to teach the level of ordinary skill in the pertinent art, the Applicant is persuasive that the factors size of the prior art genus taught by Fodor et al. in the absence of express teaching of a particular reason to select the claimed species or subgenus outweigh any teachings of similar uses or predictability of the technology and render the instant invention as claimed non-obvious.

This rejection has been withdrawn.

Applicant's Amendment and Remarks, filed 30 Dec 2009 and 10 Mar 2010, with respect to claims 1 and 6 rejected under 35 U.S.C. 103(a) as being unpatentable over Pfleiderer et al. (US Patent 5,763,599, issued 09 Jun 1998, of record) and Fodor et al. (US Patent 5,489,678, issued 06 Feb 1996, of record) in view of in view of Walbert et al. (Helvetica Chimica Acta, 2001, 6, p1601-1611, of record) and Forbes et al. (Can. J. Chem. 1958, 36, p869-878, of record) and Wagner (J. Am. Chem. Soc. 1967, 89(12), p2820-2825) and Adam et al. (J. Chem. Soc. 1930, p202-206, of record) and further in view of Berlin (DE19938092, published 22 Feb 2001, of record) has been fully

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considered and is persuasive, as Applicant's remarks are persuasive that Pfleiderer et al. and Fodor et al. in view of Walbert et al. and Forbes et al. and Wagner and Adam et al. as discussed above and Berlin does not remedy the deficiency.

This rejection has been withdrawn.

Applicant's Amendment and Remarks, filed 30 Dec 2009 and 10 Mar 2010, with respect to claims 30-32 and 34-46 rejected under 35 U.S.C. 103(a) as being unpatentable over Pfleiderer et al. (US Patent 5,763,599, issued 09 Jun 1998, of record) in view of Haugland et al. (US Patent 5,635,608, issued 03 Jun 1997, of record) in view of Walbert et al. (Helvetica Chimica Acta, 2001, 6, p1601-1611, of record) and Forbes et al. (Can. J. Chem. 1958, 36, p869-878, of record) has been fully considered and is persuasive, as Applicant's remarks are persuasive that Pfleiderer et al. in view of Haugland et al. in view of Walbert et al. and Forbes et al. does not provide sufficient guidance to one of ordinary skill in the art to selectively combine the teachings so as to render the instant invention obvious. Analyzed in accordance with MPEP 2144.08, Applicant is persuasive that the factors size of the prior art genus taught by Haugland et al. in the absence of express teaching of a particular reason to select the claimed species or subgenus outweigh any teachings of similar uses or predictability of the technology and render the instant invention as claimed non-obvious.

This rejection has been withdrawn.

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Applicant's Amendment and Remarks, filed 30 Dec 2009 and 10 Mar 2010, with respect to claims 30 and 33 rejected under 35 U.S.C. 103(a) as being unpatentable over Pfleiderer et al. (US Patent 5,763,599, issued 09 Jun 1998, of record) in view of Haugland et al. (US Patent 5,635,608, issued 03 Jun 1997, of record) in view of Walbert et al. (Helvetica Chimica Acta, 2001, 6, p1601-1611, of record) and Forbes et al. (Can. J. Chem. 1958, 36, p869-878, of record) and further in view of Berlin (DE19938092, published 22 Feb 2001, of record) has been fully considered and is persuasive, as Applicant's remarks are persuasive that Pfleiderer et al. in view of Haugland et al. in view of Walbert et al. and Forbes et al. as discussed above and Berlin does not remedy the deficiency.

This rejection has been withdrawn.

The closest prior art is Pfleiderer et al. and Fodor et al. in view of Walbert et al. and Forbes et al. and Wagner and Adam et al., or Pfleiderer et al. in view of Haugland et al. in view of Walbert et al. and Forbes et al. as discussed above.

Applicant's Remarks, filed 30 Dec 2009, are persuasive that the factors size of the prior art genus in the absence of express teaching of a particular reason to select the claimed species or subgenus outweigh any teachings of similar uses or predictability of the technology and render the instant invention as claimed non-obvious. Applicant's remarks are persuasive that the prior art does not provide sufficient guidance to one of ordinary skill in the art to pick and choose to combine the teachings such that the instant invention is rendered obvious.

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Therefore the instant invention as claimed is not taught or fairly suggested by the prior art.

## Conclusion

Claims 1, 3-17, 24, 25, and 30-57 are allowed in view of Applicant's Supplemental Amendment, filed 10 Mar 2010, and the Examiner's Amendment detailed herein.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan S. Lau whose telephone number is 571-270-3531. The examiner can normally be reached on Monday - Thursday, 9 am - 4 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shaojia Anna Jiang can be reached on 571-272-0627. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jonathan Lau Patent Examiner Art Unit 1623 /Shaojia Anna Jiang/ Supervisory Patent Examiner Art Unit 1623